

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number
WO 2005/036224 A1

(51) International Patent Classification⁷: G02B 6/16, 6/12

(21) International Application Number:
PCT/GB2004/004257

(22) International Filing Date: 8 October 2004 (08.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0323806.0 10 October 2003 (10.10.2003) GB

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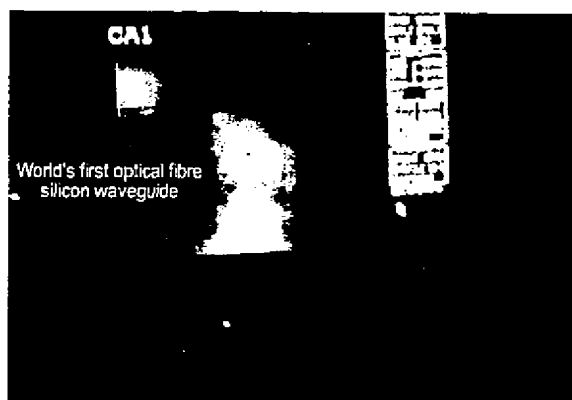
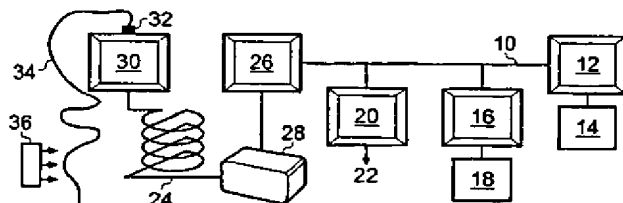
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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

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(54) Title: FABRICATION OF SEMICONDUCTOR METAMATERIALS



(57) Abstract: A method of fabricating a semiconductor metamaterial is provided, comprising providing a sample of engineered microstructured material that is transparent to electromagnetic radiation and comprises one or more elongate, high aspect ratio voids, passing through the voids a high pressure fluid comprising a semiconductor material carried in a carrier fluid, and causing the semiconductor material to deposit onto the surface of the one or more voids of the engineered microstructured material to form the metamaterial. Many microstructured materials and semiconductor materials can be used, together with various techniques for controlling the location, spatial extent, and thickness of the deposition of the semiconductor within the microstructured material, so that a wide range of different metamaterials can be produced.



(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report